Amendments to Claims

Claim 1 (Withdrawn). A method for accumulating a translocated protein in a plant tissue comprising:

a) providing a plant having cells comprising a transgene comprising a protein translocation cassette encoding a protein having the general structure: SSP-TP-ER; wherein:
   (i) SSP is a sporamin signal peptide;
   (ii) TP is a protein to be translocated; and
   (iii) ER is an endoplasmic reticulum retention peptide; and
b) growing the plant under conditions whereby the protein translocation cassette is expressed, and the translocated protein is accumulated in the plant tissues.

Claim 2 (Withdrawn). A method according to Claim 1 wherein the plant tissues are selected from the group consisting of leaves and seeds.

Claim 3 (Withdrawn). A method according to Claim 1 wherein the translocated protein is accumulated in the endoplasmic reticulum of the plant tissues.

Claim 4 (Withdrawn). A method according to Claim 1 wherein the translocated protein is accumulated in an amount greater that 1.2% of the total soluble protein.

Claim 5 (Withdrawn). A method according to Claim 1 wherein said translocated protein accumulates in an amount greater than 8.7% of the total soluble protein.

Claim 6 (Withdrawn) A method according to Claim 1 wherein the endoplasmic reticulum retention peptide has an amino acid sequence selected from the group consisting of SEQ ID NO:33 and SEQ ID NO:34.

Claim 7 (Withdrawn). A method for accumulating a translocated protein in a plant tissue comprising:

a) providing a plant having cells comprising a transgene comprising a protein translocation cassette encoding a protein having the general structure: SSP-TP; wherein:
   (i) SSP is a sporamin signal peptide; and
   (ii) TP is a protein to be translocated; and
b) growing the plant under conditions whereby the protein translocation cassette is expressed, and the translocated protein is accumulated in the plant tissues.

Claim 8 (Withdrawn). A method according to Claim 7 wherein the plant tissues are leaves.

Claim 9 (Withdrawn). A method according to Claim 7 wherein the translocated protein is accumulated in the apoplast of the plant tissues.

Claim 10 (Withdrawn). A method according to Claim 7 wherein the translocated protein is accumulated in an amount greater that 2.4% of the total soluble protein.

Claim 11 (Withdrawn). A method according to Claim 7 wherein the translocated protein is accumulated in an amount greater that 8.5% of the total soluble protein.

Claim 12 (Withdrawn). A method for accumulating a translocated protein in a plant tissue comprising:

a) providing a plant having cells comprising a transgene, the transgene comprising a protein translocation cassette encoding a protein having the general structure: SSP-SProP-TP; wherein:;
  (i) SSP is a sporamin signal peptide; and
  (ii) TP is a protein to be translocated;
  (iii) SProP is a sporamin pro-peptide; and
b) growing the plant under conditions whereby the protein translocation cassette is expressed, and the translocated protein is the plant tissues.

Claim 13 (Withdrawn). A method according to Claim 12 wherein the plant tissues are seeds.

Claim 14 (Withdrawn). A method according to Claim 12 wherein the translocated protein is accumulated in the vacuole of the plant tissues.

Claim 15 (Withdrawn). A method according to Claim 12 wherein the translocated protein is accumulated in an amount greater that 5.5% of the total soluble protein.

Claim 16 (Withdrawn). A method according to Claim 12 wherein the translocated protein is accumulated in an amount greater that 8.2% of the total soluble protein.

Claim 17 (Withdrawn). A method according to any one of claims 1, 7 or 12, wherein the protein translocation cassette further comprises:

a) suitable regulatory sequences selected from the group consisting of promoters, enhancers, terminators; and
b) optionally, a 6x histidine tag operably linked to C-terminus of the translocated protein.

Claim 18 (Withdrawn). A method according to claim 17, wherein the promoter is selected from the group consisting of:

a) constitutive promoters;
b) tissue-specific promoters;
c) developmental stage-specific promoters;
d) inducible promoters;
e) viral promoters;
f) male germline promoters;
g) female germline promoters;
h) common germline promoters;

i) chemically inducible promoters;
j) plant floral common germline promoters;
k) plant vegetative shoot apical meristem promoters; and
l) plant floral shoot apical meristem promoters.

Claim 19 (Withdrawn). A method according to Claim 18, wherein the constitutive promoter is selected from the group consisting of a CaMV 35S promoter, a nopaline synthase promoter, an octopine synthase promoter, a ribulose-1,5-bisphosphate carboxylase promoter, Adh1-based pEmu, Act1, SAM synthase promoter, a Ubi promoter and a chlorophyll a/b binding protein promoter.

Claim 20 (Withdrawn). A method according to Claim 18 wherein the tissue specific promoter is isolated from genes encoding the proteins selected from the group consisting of napin, cruciferin, beta-conglycinin, phaseolin, zein, oleosin, acyl carrier protein, stearoyl-ACP desaturase, fatty acid desaturases, glycinin, Bce4, vicilin, and patatin.

Claim 21 (Withdrawn). A method according to any one of claims 1, 7 or 12, wherein the translocated protein is selected from the group consisting of:

a) a transformation marker;
b) a protein conferring a morphological trait;
c) a non-enzyme protein;
d) an enzyme; and
e) a silk-like protein.

Claim 22 (Withdrawn). A method according to Claim 21 wherein the silk-like protein is natural or recombinant.

Claim 23 (Withdrawn). A method according Claim 21 wherein the silk-like protein is derived from silks produced by *Bombyx mori* or *Nephila clavipes*.

Claim 24 (Withdrawn). A method according to claim 22 wherein the silk-like protein comprises the amino acid sequence as set forth in SEQ ID NO:7 and the amino acid sequence as set forth in SEQ ID NO:8.

Claim 25 (Withdrawn).. A method according to Claim 22 wherein the silk-like protein comprises the amino acid sequences selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4 and SEQ ID NO:5.

Claim 26 (Withdrawn). A method according to Claim 23 wherein the silk-like protein is DP-1B.

Claim 27 (Withdrawn). A method according to any one of claims 1, 7 or 12 wherein the plant is selected from the group consisting of food plants, non-food plants, arboreous plants, and aquatic plants.

Claim 28 (Withdrawn). A method according to claim 27, wherein the plant is selected from the group consisting of corn, wheat, barley, oats, sorghum, rice, rye, grasses, banana, soybean, rapeseed, sunflower, cotton, tobacco, alfalfa, *Arabidopsis*, sugar beet, sugar cane, canola, millet, beans, peas, flax, and forage grasses.

Claim 29 (Original). A translocation protein cassette encoding a protein having the general structure: SSP-TP-ER; wherein:

(i) SSP is a sporamin signal peptide;
(ii) TP is a protein to be translocated; and
(iii) ER is an endoplasmic reticulum retention peptide selected from the group consisting of SEQ ID NO:33 and SEQ ID NO:34.

Claim 30 (Withdrawn). A protein translocation cassette encoding a protein having the general structure: SSP-SProP-TP; wherein:

(i) SSP is a sporamin signal peptide;
(ii) TP is a protein to be translocated; and
(iii) SProP is a sporamin pro-peptide.